

THE DEPARTMENT OF THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

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ON MAY SIXTH of this year a conference on professional education was held in the city of Washington under the direction of the American Council on Education. This conference was attended by representatives of pharmacy, medicine, dentistry, law and engineering. The subjects under discussion were those things in education which the professions may have in common. At the moment the question which was uppermost was the question of cultural subjects. One member of the committee representing pharmacy was the Editor of the *American Journal of Pharmaceutical Education*. He was asked by a representative of the New York Department of Education why pharmaceutical educators insist on placing so much English or mother tongue in the pharmaceutical curriculum. The reply was that the first essential in an educated man is to speak well his mother tongue and be able to express his thoughts clearly and succinctly. It might also be added that in a sense the ability to speak and write well is the professional man's greatest commercial asset; for it is the one thing above all things that inspires respect and confidence of one's patrons and patients. In other words, a course in English might easily be considered a course in commercial pharmacy. The tragedy of the situation is and we must admit it, that a year in English does not do what we would like to have it do in correcting deficiencies in one's language. A number of teachers of English in schools of pharmacy have realized that English must be taught in a college of pharmacy beyond the courses in English routinely offered. Mrs. Adelaide Harris of the School of Pharmacy of Western Reserve University presents a paper in THIS JOURNAL which is brimming full of ideas as to the possibilities and methods of rectifying this deplorable English situation in our schools. Please note that the title of the paper is not English for Students of Pharmacy, but English for Pharmacists, and the paper can be read to advantage by every retail druggist in the United States.—RUFUS A. LYMAN, *Editor*.

ENGLISH FOR PHARMACISTS.

THE TEACHING OF ENGLISH IN SCHOOLS OF PHARMACY.

BY ADELAIDE E. HARRIS.*

On the door leading to the class rooms of the School of Pharmacy of Western Reserve University are two gold-lettered words, one beneath the other: Pharmacognosy. English. The words indicate the two departments located here, yet to the casual passerby, pausing to comment, they suggest a special kind of English, whose peculiar habitat is a School of Pharmacy.

Is there such a subject as Pharmacy English? One trusts not. The language spoken and written by the graduates of our schools does not, or at least should not, differ from the language used by other educated men. The books they read, in the moments torn from the perusal of the PHARMACOPŒIA and the NATIONAL FORMULARY, are those read by their peers. Our chief responsibility, then, as teachers of English, would seem to be to give our students so firm a foundation in the principles of speech and writing, as well as in the appreciation of good reading, that in both their professional and social relationships they would rank as cultivated men. "What, you mean that pharmacists have to take English? Well, they certainly need it." This is a comment heard less frequently of late, but one which should not be called for at all.

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There is no such subject as Pharmacy English; yet the fact remains that English in a school of pharmacy should be—obvious as it may sound—primarily for pharmacists. It should consider their particular needs, although these needs may not as yet be expressed or realized. The students in our classes to-day are enrolled for a four-year course, with the degree of Bachelor of Science as their goal. They wish to be considered professional men, whether their work is to lie in the retail store, the hospital pharmacy or the research laboratory. They will have an increasing leisure in which to develop their individual lives. The men and women in the other health professions, doctors, dentists, nurses, with whom they will be associated will have had from two to four years of work in a college of liberal arts before their four years of professional training, and they must not feel at too great a disadvantage with them. For these students a course should be planned that will not, on the one hand, be so narrow that it considers only their professional requirements, nor, on the other, be so vaguely cultural that it fails to have any connection with them.

Certain obstacles face us at the outset. The average freshman who enrolls in a school of pharmacy is not primarily interested in English. He may even be definitely antagonistic. He is, presumably, a science major, and though he may not shine in chemistry he recognizes its relevancy to his chosen career. What, indeed, has English to do with the filling of prescriptions? One freshman may be permitted to speak for the many: "Of all the subjects that engrossed me in high school I cannot truthfully say that English was my grand passion." And another, whose interests are clearly not cultural, utters this lament: "English, mathematics and botany, all comprehensive subjects, thoroughly discourage one and leave him in an uncertain state."

The question of whether the English courses should be taught within the school of pharmacy itself or in the university is one which cannot be ignored in this paper, although it cannot be answered. Probably in most of our schools there is no possibility of choice, and, even when there is, the varying circumstances would have to be taken into consideration. Inevitably, there must be advantages and disadvantages to either arrangement. At Western Reserve University conditions have dictated the teaching of English within the School of Pharmacy, although our students take their chemistry, mathematics and foreign languages in University classes. The benefits derived from such a plan can be suggested only by setting down in broad outlines the work of the Pharmacy English department at Western Reserve University. My hesitancy in doing so is due to the fear that to the slightest extent the courses so outlined should be assumed to be models. The main purpose of this paper is to provoke discussion. If it should bring suggestions or objections from others concerned with the teaching of English to pharmacy students, something might come of it which would be of definite value to us all.

As far as objectives go, the courses in English at Western Reserve are planned to meet the broad needs of the students. In this school, even in the days when a pharmacy degree could be gained in two years and pharmacy was that much nearer a business than a profession, the work in English was never considered "Business English." For as long as the School has been a part of the University, the English department has been the chief agent of culture, of "sweetness and light," in an atmosphere necessarily impregnated with chemical experiments, with the identifica-

tion of crude drugs, with the manufacture of tablets and ointments. It has assumed the responsibility of training for living as well as for making a living, of preparing for that increased leisure which must come—even for pharmacists.

English is a catholic course wherever it is found—in a professional school it must be particularly so. Without neglecting the practical side—and that side is to be developed later—no other course can so naturally take the lead in questions of good manners and good taste and of taking advantage of the cultural opportunities of the university and city.

Suggestions in these matters cannot be covered and dismissed at any one time, but are introduced throughout the year. Occasions are naturally provided. After the luncheon to welcome the freshmen and before the Parke-Davis or Eli Lilly trips, at the time of the girls' tea and the student council dance, interest is already aroused concerning table manners, introductions, the responsibility of contributing one's share to the conversation and like matters. Letter writing, particularly social notes and the letter of application, brings up other points of social usage. At Western Reserve the pharmacy freshmen go each year to the Cleveland Museum of Art, and the junior class visits a special exhibit. A few students are induced to attend the Playhouse or a special lecture through the privilege of substituting their reports for a regular theme; special problems send them all to the University library. In this phase of the English work, as in others, still more might be accomplished through the further support of the faculty. When our dean comments on an opera or play he has attended, when a popular professor of chemistry expresses shocked surprise that some members of his class have never been inside the Art Museum, the recommendations of a feminine English teacher are strongly enforced.

Within the last three years certain inexpensive pamphlets have simplified and strengthened the somewhat extraneous sides of the work. *The Technique of Good Manners* has been used as a reference for questions relating to etiquette and personal appearance, and other handbooks are recommended. *The Students' Guide of Efficient Study* is another required, though unrelated pamphlet, which is useful at the beginning of the year, since it treats such practical matters as planning work, note taking and learning to concentrate.

Granted that any social and cultural contributions that can be made by the English courses are of particular value in a professional school, they must not be developed at the expense of the practical side. Our students must be trained to speak and write clearly, accurately and with reasonable effectiveness; they must be trained to read with understanding and, wherever possible, with appreciation. Indeed a disproportionate amount of time must be spent upon the mechanics of English. The foundation which should have been laid in grammar and high school is possessed by only the exceptional college freshman, and often his family background and his environment are a handicap rather than an aid. The problem is not, it may be said, peculiar to a school of pharmacy, but it exists here and has to be faced.

Courses in Freshman English must resemble each other so closely that no one needs to be described in detail. The broad outlines alone will be indicated, and the emphasis placed upon those features which are particularly pertinent to our needs. The principles of composition are taken care of by the text which is used throughout the year. The perforated sheets of this text provide a thorough drill on

fundamentals and conserve the students' time. When these are corrected and the analysis of the results brought before the class, an attempt is made to stress only the more serious errors and to avoid the niceties of the purist. The mechanical elements—punctuation and grammatical construction, for example—are not considered as ends in themselves, but as aids to good sentences and hence to a more mature and flexible style. The need of clear thinking as a basis for clear writing must have been deeply impressed on the mind of one unhappy freshman to account for the following: "I also find English one of the hardest subjects I carry. It makes one think different from what I do on other subjects. This subject English is a real battle. As I have mentioned above you have to think and think clearly."

Theme writing is naturally the backbone of the first-year course. One or two short themes a week are required the first semester, with longer themes the second semester, each theme being corrected or rewritten and checked in conference. (The conference periods vary in length and frequency with the individual students, but they are held for all.) The type assigned is chiefly expository, a type which calls for definite structure; but for material, the writer is encouraged to draw upon his own interests and hobbies, experience and background. A limited time is devoted to letter writing, business and social, with the point always made that for the technical forms of business correspondence—sales letters, complaint letters and others—a recent text on the business letter should be consulted. Place is found for drill in vocabulary building and the intelligent use of the dictionary. Too little place can be found for oral talks, yet they are given whenever possible, particularly on outside reading.

Two written projects of the first year—the term paper and the library problem—have been adapted as far as possible to the interests of our students. The term paper provides an introduction to the technique of research, scientific or literary. It involves, in addition to careful organization, insured partly by the sentence outline, practice in the finding and handling of source material, the taking of notes on cards, the arrangement of foot-notes and the preparation of a bibliography. The subject matter may be drawn from the field of pharmacy but not necessarily so—there is still plenty of time for that. The appeal to the student is often made through giving him the opportunity to investigate a subject in which he is already interested, a hobby he has already made his own. It may be the breeding of tropical fish or the developments—in color photography, the building of model airplanes or the cultural achievements of his race—whatever the subject, this experience in the organizing and writing of a simple research paper should stand him in good stead in future courses and in personal investigation. It may also lay the foundation for an enduring interest which will bring its own reward.

The library problem is assigned at the beginning of the second semester some weeks before the term paper to which it is allied. Primarily, the project is designed to introduce the student to the tools of scholarship in any field, though particularly in his own, so that he may know the feel of them when he is called upon for simple research papers or reports. It helps also to impress upon him that the fact of being perfectly at home in a laboratory is no reason for feeling ill at ease in a library. Many of the questions are adapted to his professional interests. Let me illustrate by a few examples. The mechanics of the card catalog are revealed through the preparation of a bibliography of histories of pharmacy, and through the listing of

bibliographical data on such books as *Microbe Hunters* and *Rats, Lice and History*. In the *Encyclopedia Britannica* the article, "Alchemy," may be looked up and the author and bibliography noted; in the *Encyclopedia of the Social Sciences* the article "Medical Materials Industry," is investigated and the cross-references listed. Almanacs and Year Books yield information not only on the increase in automobile fatalities and the outstanding motion pictures of the preceding year, but on important achievements in medicine and chemistry, the recent trends in drugs, the locations of schools of pharmacy. The *Book Review Digest* may be consulted for critical opinion on such books as *Devils, Drugs and Doctors* or *An American Doctor's Odyssey*; readers' handbooks and anthologies of quotations for allusions that disclose pharmacy in literature; the *New English Dictionary* for the earliest uses of the familiar terms: apothecary, druggist, pharmacist. The *Reader's Guide* and the *Industrial Arts' Index* are used to prepare a working bibliography for possible papers entitled; Recent Food and Drug Legislation or Federal Regulation of Narcotics.

At Western Reserve the emphasis is placed upon the principles and practice of composition the first semester and upon the understanding of literature the second, but there is no marked division in the work of the year. Neither has it been found practicable to make the easy distinction between writing as a tool for practical and professional purposes and reading as a source of personal enrichment. Accurate and forceful writing has surely a social and cultural value and the understanding of the written word a practical. A recent text on Business English stresses the importance of imagination in business and urges its cultivation through the reading of the best prose and poetry. There is a point here, though it may be open to question if literature read for that ulterior end would yield very much to the reader.

The anthology now used throughout the year in our first-year classes contains examples of biographical sketches, essays and articles, plays, short stories and poems, none earlier than the nineteenth century, the greater number of our own day. It supplanted another of the same type, largely on the grounds that *Florence Nightingale* would appeal to our students more than *Queen Victoria*. Likewise for *The Return of the Native* we have substituted *Arrowsmith*, in the belief that the picture of a young scientist driven by enthusiasm and curiosity to seek out the facts was of more significance for students of science than the tragic, fate-woven happenings on Egdon Heath.

The advisability of giving a survey course in the second semester should, it would seem, be gravely challenged, at least in a professional school. There was a time—it is best forgotten—when we undertook to follow the story of English literature from Caedmon to Kipling, with results that were too often profoundly discouraging. The fuddled state of mind of the sufferer who wrote in his final paper: "The language of Beowulf is French, it was written during the Age of Chaucer to the ascension of Queen Elizabeth," may have been extreme yet it is also revealing. Nor is the mere ability to identify great names an end in itself. Its value for social purposes has been argued, as did the student who wrote that "very seldom does one attend a ball or a yachting party without some mention of the immortal works of Shakespeare, Milton, Chaucer, or some of the other famous poets of the day being brought up," but the contingency here raised is, for most future pharmacists, too remote to demand consideration.

More important is training in the ability to understand what is read, to grasp the point of view of the writer though it is remote from one's own, to analyze, condense or restate in words that contain the spirit and intention of the original. To inculcate a love of reading, to kindle a desire to grasp the underlying thought of the author, to foster the idea that appreciation of literature, as of all the arts, is a matter of growth and continued contact—these are high aims, but we can probably come closer to attaining them if we devote the few hours we have to the writings that are close in time and in spirit to the students who read them. The use of the contemporary writing, requiring as it does a minimum of biographical and historical background, makes it possible to concentrate upon the form and content of the work itself, and thus to come closer to some measure of appreciation.

"Outside reading" is encouraged in various ways. The pamphlet, *Good Reading*, published by the National Council of Teachers of English, eliminates the need of preparing book lists, although to it must now be added the books published since 1935 that can be recommended. Indeed, the natural appeal of a number of recent books is on our side. The cry of "No time," justified to a certain extent by the long laboratory periods and necessary job, is a disheartening barrier; yet more needs to be done if that most rewarding of all habits, the habit of reading good books, is to be formed.

When the course in pharmacy was completed in two or three years, one year of English was all that could be included, regardless of the need. With the establishment of the four-year course leading to the B.S. degree and the consequent broadening and strengthening of the curriculum, the question of a second year of English can be seriously considered. A number of our schools have already done so. In at least six, two years are required, and in many more a second year is elective. Considering the natural trend, the second year, required or recommended, is to be increasingly expected.

Of what should that second year consist? The objectives of the first, candor would compel us to admit, are far from attained. Particularly does this apply to errors in grammar and diction. The defense is that crudities so deeply embedded that they have resisted the continuous war waged upon them through grammar and high school and have entered college cannot always be eradicated in one year. They may not be disposed of in two, although we trust the amount of time devoted to the process has a direct bearing upon the result. Yet if the desires of the students themselves are to be consulted we shall not offer a second course in composition, not at least under that name. The mingled feeling of resentment and dismay a number will cherish over being expected to take a second year of English (there was a time when one year was considered an effrontery) will not be placated by the prospects of another year of theme writing. At the same time they may respond to a course that seems to them to have a definite connection with their future work as pharmacists.

From incomplete data compiled from a number of catalogs, it would appear that our schools have given different answers to the problem. A course in public speaking is the first choice of a number, with courses in expository writing and English literature following. A careful investigation of this question would be helpful.

At Western Reserve the experimental period of the second year of English

may not have passed. For two years a combined course in public speaking and magazine article writing was required of all juniors; last year a one-year course, entitled Professional Speech, was made an elective but given a definite place in the curriculum. The writing course is now an elective of one semester, as are courses in the contemporary biography and the contemporary novel. There is no real expectation at present of encouraging students to take more than two years of English, although exceptions might be made.

The fact that the speech course this year was elected by the stronger students in the class leads to another important question. Might it not be wise deliberately to plan a course for these students we hope may be leaders in the profession, the men who in a few years may be on the faculties of our schools, editing and contributing to our journals, addressing and holding office in our associations and academies? Too few graduates of the two-year course are fitted for these positions, though such a statement must always be qualified by the admission that the amount of education is by no means the only factor in a man's success.

For the weaker students, those who make the English grade with difficulty but fulfil the science requirements sufficiently for graduation, some further experience with the fundamentals of composition should be arranged. One plan might be to require those students who do not elect the second-year course to take an examination in the mechanics of English, and, if they do not pass it, to take a brief, comprehensive review. It may well be that in those universities in which a sub-freshman or remedial course is required of all who do not pass the entrance examination in English, this procedure would be unnecessary.

The speech course at the School of Pharmacy of Western Reserve University is, to quote the catalog, planned with particular attention to the needs of the professional student. As a whole, the upper classmen welcome a course of this type, situations already encountered in the business and social world having convinced them of its importance. They feel, too, that the man who can speak clearly and persuasively, either informally in conference and committee or more formally on the platform, is a man to be respected. Gradually they discover that training in speech is training in other factors—organization, accuracy, logical thinking—no less needed but perhaps not so eagerly sought after.

The course as a whole is too orthodox in its methods to require presentation in detail. It emphasizes, as must every speech course, the ability to think on one's feet and to recreate one's thoughts with sincerity and conviction. It provides practice in the different types of speeches—the extempore, the impromptu and the written, with the emphasis upon the first-named. It provides training in the handling of group discussions, including the asking and answering of questions, in presiding over meetings and introducing speakers. It hopes also to produce discriminating audiences as well as performers.

With the effective delivery of the speech itself held as the goal, it is possible to weave into its preparation, drill in those essentials of composition—oral and written—that still need to be mastered. Definite organization is assured, or reasonably so, by the sentence outline or analysis which must be submitted in advance of the speech. New stimulus is provided for the exercises in vocabulary building, in pronunciation, even in the ruefully admitted errors of grammar and diction. Point is given to the finding and use of reference materials and to the employment

of the other tools of research. Particularly satisfying is the increased zeal for good reading evinced in reports that are often stimulating as well as intelligent.

All this could be added to and expanded, but the main point of the course is still to be made. That lies, it seems to me, in the close relationship it has with the other departments in the School. Its title, Professional Speech, itself implies that relationship. It is carried out as far as possible in the form and content of the speeches assigned, though not without the realization that the word "professional" is broad in its connotations and that the professional man should not be inarticulate on any subject but his own.

Illustrations are needed. The broader interests of the pharmacist as an individual are expressed in informative talks on current events, civic and national problems, interesting people and books; in entertaining talks which at least win the approval of the audience; in talks to stimulate or convince on anything from the need of a new ping pong table in the lounge to the need of a new interpretation of religion. One series, in the form of a symposium, drew the composite picture of an ideal student of pharmacy, each speaker contributing one point. This model student would be interested in the history of pharmacy, investigate the opportunities in his profession, keep abreast of the latest developments in medicine and pharmacy and—at the same time—take part in the activities of the School and University, take advantage of the cultural opportunities of Cleveland, keep informed of the news of the world, broaden his interests through general reading, cultivate a hobby and so on through a formidable, if not an alarming, list of virtues.

The main talks of the year, those given at the end of each semester, were on subjects almost exclusively related to pharmacy. The first series, made up of the talk to actuate was given during a long session, broken by recess and refreshments, and dignified by an augmented audience and especially appointed chairmen, ushers and critics. The final series was composed of written speeches read before the class, with the idea that since actual speeches prepared for formal or professional gatherings are so often read, practice in doing so as effectively as possible would not be amiss. The written speech is, moreover, a valuable exercise in expository writing—it actually takes the form of the research paper—but was made more palatable for the student by being prepared for a definite audience and occasion.

It is gratifying to record that some of the talks have had immediate and tangible results. To one is due the reorganization this year of a student branch of the AMERICAN PHARMACEUTICAL ASSOCIATION. This branch during the University Open House sponsored a speech contest on the general theme of the Value of Pharmacy. From the president of the Northern Ohio Druggists' Association has come the proposal that a student speech contest be held for its members. Perhaps, in this connection, it can also be stated that two student publications—the *Pharmakon* and *Mortar and Pestle*—provided needed outlets for papers and written speeches of special merit.

The correlation between the English courses, in particular the speech course, and other departments of the School of Pharmacy has been close, as this paper has attempted to point out. It could be even closer, with definite advantages for both. The dean and the other members of the faculty have coöperated in supplying topics for talks and papers, in responding to requests for interviews, in swelling the audience for special programs, in acting as judges in contests. They, in turn,

should expect for their own classes a higher standard in oral and written reports, a greater measure of originality, a more interesting presentation.

PINEAPPLE SYRUP.

BY BERNARD FANTUS AND H. A. DYNIEWICZ.*

The success, we believe, the Syrup of Cherry has achieved as a flavoring vehicle for acid medication, as evidenced by its acceptance in the National Formulary (VI), emboldened us to propose to ourselves the question whether it might not be well to make available to the physician for the flavoring of medicines some other fruit flavors such as apricot, peach or pineapple.

We have prepared Syrup of Peach, Syrup of Apricot and Syrup of Pineapple, following a general formula, such as is official in the National Formulary for Syrup of Cherry and Syrup of Raspberry. We find that of these the Pineapple Syrup is the only one that seems to have special virtues which might make it suitable as a vehicle for medicines. The Peach and Apricot flavors are somewhat too delicate to have much disguising value. Would, therefore, like to submit the following formula for consideration and possible inclusion in a subsequent edition of the National Formulary.

SYRUPUS BROMELIÆ

Syrup of Pineapple

Syr. Bromel.

Crush pineapple in a grinder, dissolve 0.1 per cent of benzoic acid in the mixture, and allow to stand at room temperature until a small portion of the filtered juice produces a clear solution when mixed with one-half of its volume of alcohol. Press out the juice from the mixture and filter; add sucrose in the proportion of 850 Gm. of sucrose to each 450 cc. of the filtered juice. Dissolve the sucrose in the juice by heat on a water-bath, cool and remove the scum. Add 20 cc. of alcohol for each 1000 cc. of Syrup.

Canned Pineapple juice might be employed in the above formula, although the use of the fruit, as above described, is much more economical.

Storage.

Keep the Syrup in well-closed containers.

Alcohol content: from 1 to 2 per cent, by volume, of C_2H_5OH .

We believe that the Pineapple Syrup has a special value as a vehicle for sodium citrate or potassium citrate for which the colored fruit syrups like cherry or raspberry are not suitable as the citrate causes a change in color. We welcome the trial of the following prescription:

℞ Potassium citrate	15 Gm.
Water	15 cc.
Syrup of Pineapple, to make	60 cc.

Label: Teaspoonful in one-half glassful of water every two hours.

Having wasted much time in a fruitless endeavor to develop an artificial cherry bouquet, we have arrived at the conclusion that it is beyond our wisdom and power to imitate artificially

* From the Laboratory of Pharmacology and Therapeutics, University of Illinois, College of Medicine, assisted by a grant from the AMERICAN PHARMACEUTICAL ASSOCIATION.